Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An optical data transmission system, comprising:

a hub;

a kerb location;

~~a converter;~~

an optical router; and

a plurality of optical network units,

wherein the optical network units are configured to transmit a plurality of respective data signals to the kerb location, wherein the kerb location includes a plurality of optically pumped sources configured to form data modulated transmission light, ~~the optically pumped sources each comprising a laser cavity, mirrors defining the cavity, and wavelength selective elements inside the cavity,~~

wherein the optical router is configured to route wavelength channels having predefined wavelength ranges assigned to respective optical network units for transmission to the hub,

wherein the ~~converter is configured to convert the~~ data signals are converted into the wavelength channels, the conversion being performed without any intermediate conversion to or from an electrical signal, and

wherein the data signals comprise optical signals.

2. (Canceled)

3. (Previously Presented) An optical data transmission system according to claim 1, wherein the data signals are used as pump signals to generate the wavelength channels.

4. (Previously Presented) An optical data transmission system according to claim 1, wherein the data signals are within a wavelength range which does not include the wavelength or wavelengths of the wavelength channels.

5. (Previously Presented) An optical data transmission system according to claim 1, wherein the wavelength channels are generated by the plurality of optically pumped sources.

6. (Previously Presented) An optical data transmission system according to claim 5, wherein the optically pumped sources generate light having different wavelengths in order to define the wavelength channels having predefined distinct wavelength ranges.

7. (Canceled)

8. (Previously Presented) An optical data transmission system according to claim 1, wherein respective ones of the optical network units are sufficiently similar that they are interchangeable.

9. (Previously Presented) An optical data transmission system according to claim 5, wherein the optically pumped sources are injection locked lasers.

10. (Currently Amended) An optical data transmission system according to claim 9, wherein ~~the~~ an injection wavelength is selected by a wavelength division multiplexer and/or an arrayed waveguide grating.

11. (Previously Presented) An optical data transmission system according to claim 5, wherein the optically pumped sources are external cavity lasers.

12. (Currently Amended) An optical data transmission system according to claim 10, wherein the optical router is within ~~the~~ a laser cavity of at least one optically pumped source.

13. (Previously Presented) An optical data transmission system according to claim 1, wherein a pumping light is at a wavelength different from the wavelength of light which is used to carry data traffic in upstream and downstream directions.

14. (Previously Presented) An optical data transmission system according to claim 1, wherein the optical router is a wavelength division multipexer.

15. (Previously Presented) An optical data transmission system according to claim 1, wherein the optical router is an arrayed wavelength grating.

16. (Currently Amended) A method of transmitting data, the method comprising:

transmitting, with an optical network unit, a plurality of respective data signals to the kerb location in an optical data transmission system, wherein the kerb location comprises a plurality of optically pumped sources including a plurality of laser cavities configured to select a resonance ~~level~~ peak of an incident light, the optically pumped sources configured to form data modulated transmission light;

~~routing wavelength channels having predefined wavelength ranges assigned to respective optical network units for transmission to a hub with an optical router; and~~

converting the data signals into ~~the~~ wavelength channels with a converter, wherein the converting is performed without an intermediate conversion to or from an electrical signal, and wherein the data signals are optical signals; and

routing the wavelength channels having predefined wavelength ranges assigned to respective optical network units for transmission to a hub with an optical router.

17. (Currently Amended) An optical router for an optical data transmission system, the optical data transmission system comprising a hub, a kerb location, and a plurality of optical network units, the optical network units being configured to transmit a plurality of respective data signals to the kerb location, the kerb location comprising a plurality of optically pumped sources including a plurality of laser cavities configured to select a resonance ~~level~~ peak of an incident light, the optically pumped sources configured to form data modulated transmission light, the optical router being configured to route wavelength channels having predefined wavelength ranges assigned to respective optical network units for transmission to the

hub, and the optical router comprising a converter to convert the data signals into the wavelength channels, wherein the conversion is performed without any intermediate conversion to or from an electrical signal, and wherein the data signals are optical signals.

18. (Currently Amended) A converter for an optical data transmission system, the optical data transmission system comprising a hub, a kerb location, an optical router, and a plurality of optical network units, the optical network units being configured to transmit a plurality of respective data signals to the kerb location, wherein the kerb location comprises a plurality of optically pumped sources including a plurality of laser cavities configured to select a resonance ~~level~~ peak of an incident light, the optically pumped sources configured to form data modulated transmission light, the converter being configured to convert the data signals into wavelength channels having predefined wavelength ranges assigned to respective optical network units, the conversion being performed without any intermediate conversion to or from an electrical signal, and the optical router being configured to route the wavelength channels for transmission to the hub, wherein the data signals are optical signals.

19. (Currently Amended) An optical data transmission system, comprising:

transmitting means for transmitting, with an optical network unit, a plurality of respective optical signals to a kerb location, wherein the kerb location comprises a plurality of optically pumped sources including a plurality of laser cavities configured to select a resonance ~~level~~ peak of an incident light, the optically pumped sources configured to form data modulated transmission light;

~~routing means for routing wavelength channels having predefined wavelength ranges assigned to respective optical network units for transmission to a hub with an optical router; and~~

converting means for converting the optical signals into ~~the~~ wavelength channels with a converter, wherein the converting is performed without any intermediate conversion to or from an electrical signal; and

routing means for routing the wavelength channels having predefined wavelength ranges assigned to respective optical network units for transmission to a hub with an optical router.

20. (New) The optical data transmission system according to claim 1, the optically pumped sources each comprising a laser cavity, mirrors defining the cavity, and wavelength selective elements inside the cavity.

21. (New) The method of transmitting data according to claim 16, further comprising optically pumping, at the kerb location, the plurality of optically pumped sources with the plurality of respective data signals.

22. (New) The method of transmitting data according to claim 16, wherein each wavelength channel has a predefined distinct wavelength range.

23. (New) The method of transmitting data according to claim 16, wherein the data signals are within a wavelength range which does not include the wavelength or wavelengths of the wavelength channels.

24. (New) The optical router for an optical data transmission system according to claim 17, wherein the wavelength channels are generated by the plurality of optically pumped sources, the optically pumped sources being injection lock lasers.

25. (New) The optical router for an optical data transmission system according to claim 17, wherein an injection wavelength is selected by a wavelength division multiplexer and/or an arrayed waveguide grating.

26. (New) The optical router for an optical data transmission system according to claim 17, wherein the optical router is within a laser cavity of at least one optically pumped source.

27. (New) The converter for an optical data transmission system according to claim 18, wherein wavelengths of the plurality of data signals do not include the wavelength or wavelengths of the wavelength channels.

28. (New) The converter for an optical data transmission system according to claim 18, wherein the wavelength channels are generated by the plurality of optically pumped sources.

29. (New) The converter for an optical data transmission system according to claim 28, wherein the optically pumped sources generate light having different wavelengths in order to define the wavelength channels having predefined distinct wavelength ranges.

30. (New) The optical data transmission system according to claim 19, further comprising pumping means for optically pumping the plurality of optically pumped sources at the kerb location.

31. (New) The optical data transmission system according to claim 19, wherein each wavelength channel has a predefined distinct wavelength range.

32. (New) The optical data transmission system according to claim 19, wherein the optical signals are within a wavelength range which does not include the wavelength or wavelengths of the wavelength channels.